

REMARKS

In response to the Office Action mailed June 1, 2007, claims 52 and 82 have been amended, and new claims 93-107 have been added. Therefore, claims 52-55, 66-68, 70-78, and 80-107 are currently pending. Support for the amendments may be found, for example, in the specification, e.g., between page 29, line 13, at page, 33, lines 16-26, and page 30, line 2 and between page 35, line 31 and page 36, line 15, and in the drawings, e.g., in FIGS. 7, 10, 12, and 13. No new matter has been introduced.

In the Office Action, claims 52-55, 66-68, 70-78, and 80-92 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Publication No. US 2003/0149488 (“the Metzger et al. reference”) in view of U.S. Patent No. 6,523,543 (“the Conrad et al. reference”). Because neither of the cited references, either alone or in combination, discloses, teaches, or suggests the subject matter of the present claims, the rejections should be withdrawn.

Turning first to the Metzger et al. reference, an implant 110 is disclosed that is made of a biocompatible material *selected to induce a fibrotic tissue response*. Paragraph [0042]. Specifically, the implant 110 is a flexible braid of polyester fibers that are bonded together near the ends 112 of the braid 110. Paragraphs [0042]-[0043]. As explained in the Metzger et al. reference, the implant is intended to induce a fibrotic tissue response to stiffen the pharyngeal wall. Paragraph [0014]. Thus, this is an important feature of the Metzger et al. implant.

Turning to the present claims, claim 52 recites a method for treating sleep apnea in a human or an animal having an oropharyngeal region with lateral and posterior walls that includes providing an appliance made of a biocompatible metal below a soft palate of a human or animal

in or radially outwardly from the lateral and posterior walls of an oropharyngeal region of the human or animal, the appliance so provided having at least two laterally positioned elements substantially longitudinally spaced apart from each other to define an open interior space therebetween and providing an opening force against the lateral walls of the oropharyngeal region.

First, as explained above, the Metzger et al. reference does not teach or suggest an appliance made of a *biocompatible metal*, but instead discloses an implant made from *polyester fibers*. In fact, given the importance of inducing a fibrotic tissue response to stiffen tissue as taught by the Metzger et al. reference (which would not occur with a biocompatible metal), the Metzger et al. reference actually teaches against such an appliance.

Second, the Metzger et al. reference fails to disclose, teach, or suggest an appliance having at least two laterally positioned elements substantially longitudinally spaced apart from each other *to define an open interior space therebetween*, as claimed. Instead, the Metzger et al. reference discloses polyester fibers that are wound together into a braid. Thus, even if individual fibers of the Metzger et al. braid somehow could constitute laterally positioned elements, there is no open interior space between these fibers, as can be clearly seen in the detail of FIG. 7 of the Metzger et al. reference.

The Conrad et al. reference fails to provide any teaching that may be properly combined with the Metzger et al. reference to render claim 52 obvious. The Conrad et al. reference discloses modules 10 in the form of small, radiopaque spheres that may be implanted in the soft palate SP to add mass and abate snoring. Col. 4, lines 40-65.

First, the Conrad reference fails to disclose, teach, or suggest an appliance having at least two laterally positioned elements substantially longitudinally spaced apart from each other *to define an open interior space therebetween*, which is also wholly absent from the Metzger et al. reference.

Second, the Conrad et al. reference does not teach or suggest that such spheres are capable of inducing fibrotic tissue response, but merely discloses that titanium is an example of a radiopaque material. Thus, a person of ordinary skill would not consider substituting the polyester fibers with titanium spheres, which could not be formed into a braid, as required to form the implant of the Metzger et al. reference. Accordingly, claim 52 and its dependent claims are not obvious over the Metzger et al. and Conrad et al. references.

For similar reasons, claim 82 and its dependent claims are also not obvious over the cited references. Similar to claim 52, claim 82 recites an appliance made of a *biocompatible metal* and including two elements coupled together at respective first and second ends, and being spaced apart from each other between the first and second ends to *define an open interior space therebetween*.

Turning to claim 93, an apparatus for treating at least one of sleep apnea and snoring is recited that includes an appliance comprising an elongated loop comprising first and second end portions and two spaced apart elongated elements extending between the first and second end portions, the appliance being sized for introduction into an oropharyngeal region of a human or animal and deployable in a C-shaped deployed configuration in which at least one of the elongated elements extends generally laterally across the posterior wall and the first and second

end portions bear against and provide an opening force against the lateral walls of the oropharyngeal region.

Neither of the cited references disclose, teaches, or suggests an appliance comprising an elongated *loop* comprising first and second end portions and two spaced apart elongated elements extending between the first and second end portions, as claimed. Instead, the Metzger et al. reference merely discloses a braid of fibers, while the Conrad et al. reference merely discloses implantable spheres. Accordingly, claim 93 and its dependent claims are not obvious over the cited references.

Further, neither of the cited references discloses an appliance that defines an open interior space, as recited in claim 94, or that is made of biocompatible metal, as recited in claim 99.

Turning to claim 100, an apparatus for treating at least one of sleep apnea and snoring is recited that includes an appliance comprising a single continuous loop comprising first and second rounded end portions and two spaced apart elongated elements extending between the first and second end portions such that the loop defines an open interior space between the spaced apart elongated elements, the appliance being sized for introduction into an oropharyngeal region of a human or animal and deployable in a C-shaped deployed configuration in which the elongated elements extending generally laterally across the posterior wall and the first and second end portions bearing against and providing an opening force against the lateral walls of the oropharyngeal region.

As explained above, neither of the cited references discloses, teaches, or suggests an appliance including a single continuous *loop* comprising first and second end portions and two

spaced apart elongated elements extending between the first and second end portions such that the loop *defines an open interior space* between the spaced apart elongated elements. In addition, the cited references do not include an appliance that includes first and second *rounded* end portions, as claimed. At most, the Metzger et al. reference discloses a braid made of fibers attached near the ends such that the ends fray. Paragraph [0046]. Accordingly, claim 100 and its dependent claims are not obvious over the cited references.

Finally, turning to claim 102, a method for treating at least one of sleep apnea and snoring is recited that includes providing an appliance comprising a continuous loop comprising first and second end portions and two spaced apart elongated elements extending between the first and second end portions; introducing the appliance into an oropharyngeal region; and releasing the appliance within the oropharyngeal region such that the elongated elements extends generally laterally across the posterior wall and the first and second end portions bear against and provide an opening force against the lateral walls of the oropharyngeal region.

Neither of the cited references teaches or suggests an appliance including a continuous *loop*, as claimed. In addition, the cited references do not disclose, teach, or suggest *releasing* an appliance within the oropharyngeal region such that the elongated elements extends generally laterally across the posterior wall and the first and second end portions *bear against and provide an opening force against the lateral walls of the oropharyngeal region*. For these reasons, claim 102 and its dependent claims are also not obvious over the Metzger et al. and Conrad et al. references.

Applicants submit that the pending claims are patentable over the cited prior art of record.

Accordingly, reconsideration of the claims in light of the amendments made herein is requested.

Applicants hereby request a one month extension of time.

Respectfully submitted,
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